

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-4001**

June 11, 2019

Mr. Dan Burger  
Office of Ocean and Coastal Resource Management  
Department of Health and Environmental Control  
1362 McMillan Avenue, Suite 400  
Charleston, SC, 29405

Dear Mr. Burger,

I write to express my adamant opposition to WesternGeco's application for a Geological and Geophysical Survey permit application to the Bureau of Ocean and Energy Management (BOEM), requesting to conduct two-dimensional (2D) seismic survey in the Mid- and South Atlantic Ocean regions. Seismic testing is wholly inconsistent with South Carolina's coastal management program and policies. As the agency responsible for assuring federal activities do not adversely impact South Carolina's coastal resources, I urge you to find this proposed permit inconsistent with the state's coastal protection laws and policies.

South Carolinians have made it explicitly clear where we stand on this issue. Far too much is at stake in our state. Seismic airgun blasting threatens a tourism economy that is worth \$22.6 billion, two-thirds of which comes from the coast. Additionally, one out of every ten jobs in South Carolina is associated with tourism. While folks may disagree about the amount of oil deposits that exist in the Atlantic Outer Continental Shelf, most would agree that the amount of oil off the coast of South Carolina is minimal and far less than the amount of revenue the state brings in from tourism, recreation, and commercial fishing. The people of the Lowcountry understand the risk isn't worth the reward. Our beaches and economy are not up for sale.

South Carolina's coastal zone management protection program and policies have protected the Lowcountry's natural resources —the rivers and creeks, the saltmarshes and beaches, and the wetlands and the sea islands—for 40 years. These vital protections require the S.C. Department of Health and Environmental Control (SCDHEC) to find a federal permit inconsistent with our coastal zone management plan if the harms that would result from the proposed activity are too great. In the case of seismic testing, the harms are, indeed, too great.

The permits before BOEM would allow oil and gas companies to conduct their dangerous activities as close as three miles from our coast. Seismic surveys for oil and gas exploration blast through the ocean with dozens of high-volume airguns, resulting in some of the loudest man-made sounds in the ocean. These airguns can be fired as often as every ten seconds, twenty-four hours a day, for days, weeks, or even months at a time. While these sounds may not affect human beings, they pose a serious threat to the underwater ecosystem. This is of particular concern for many marine species that rely on noise to navigate, communicate, and find food – all

of which are essential to maintaining a healthy and balanced ecosystem. I am deeply concerned about the impacts on marine life that support our local economy and provide for our unique way of life in the Lowcountry.

Commercial and recreational fishing are critically important activities to coastal South Carolina. According to the South Carolina Department of Natural Resources, the state's major commercial fisheries – shrimp, shellfish, crabs, and offshore finfish – contribute over \$21 million to South Carolina's economy each year<sup>1</sup>. Additionally, over half of all South Carolinians participate in outdoor recreation each year, including recreational fishing. Approval of the seismic permits currently before BOEM would put these activities at risk.

An extensive and growing body of research demonstrates the dangers of seismic testing to marine animals– including impacts on larval fish development and effects on the predators or prey of fished species. Depending on the level of exposure, fish can experience physical damage and stress from exposure to the noises produced by seismic testing<sup>2</sup>. Fish in previous studies have exhibited flight and alarm responses after being exposed to air gun noise<sup>3</sup>. Additionally, air gun noise from seismic testing may reduce catch rates of fish in proximity to testing areas, possibly because fish have moved away from the area<sup>4</sup>. One recent study found that seismic testing in waters off of North Carolina disrupted fish behavior patterns and led to a 78% decline in fish abundance in the evening hours following the seismic surveys, which had previously been the period of time with the most fish<sup>5</sup>.

Additionally, South Carolina is home to critical habitat for several species of sea turtles, including the loggerhead, Kemp's ridley, green and leatherback. These turtles can be found in South Carolina's near-shore waters April through November or nesting on our beaches from May through October<sup>6</sup>. Sea turtles are an iconic piece of South Carolina's wildlife, and face many natural and human-caused threats. Studies have shown that sea turtles' hearing ranges overlap with the peak amplitude, low-frequency sound emitted by seismic air guns<sup>7</sup>. Turtles' hearing ability allows them to perceive important biological signals, including predator

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<sup>1</sup> "The Economic Contribution of Natural Resources to South Carolina's Economy." SCDNR. Accessed June 10, 2019. <http://www.dnr.sc.gov/economic/index.html>.

<sup>2</sup> Carroll, A.G., R. Przeslawski, A. Duncan, M. Gunning, and B. Bruce. "A Critical Review of the Potential Impacts of Marine Seismic Surveys on Fish & Invertebrates." *Marine Pollution Bulletin* 114, no. 1 (2017): 9-24. doi:10.1016/j.marpolbul.2016.11.038.

<sup>3</sup> Fewtrell, J.L., and R.D. Mccauley. "Impact of Air Gun Noise on the Behaviour of Marine Fish and Squid." *Marine Pollution Bulletin* 64, no. 5 (2012): 984-93. doi:10.1016/j.marpolbul.2012.02.009.

<sup>4</sup> Streever, Bill, Scott W. Raborn, Katherine H. Kim, Anthony D. Hawkins, and Arthur N. Popper. "Changes in Fish Catch Rates in the Presence of Air Gun Sounds in Prudhoe Bay, Alaska." *Arctic* 69, no. 4 (2016): 346-58. <http://www.jstor.org/stable/24878033>.

<sup>5</sup> Paxton, Avery B., J. Christopher Taylor, Douglas P. Nowacek, Julian Dale, Elijah Cole, Christine M. Voss, and Charles H. Peterson. "Seismic Survey Noise Disrupted Fish Use of a Temperate Reef." *Marine Policy* 78 (2017): 68-73. doi:10.1016/j.marpol.2016.12.017.

<sup>6</sup> "Sea Turtles." SCDNR. Accessed June 10, 2019. <http://www.dnr.sc.gov/marine/pub/seascience/seaturtle.html>.

<sup>7</sup> Nelms, Sarah E., Wendy E.d. Piniak, Caroline R. Weir, and Brendan J. Godley. "Seismic Surveys and Marine Turtles: An Underestimated Global Threat?" *Biological Conservation* 193 (2016): 49-65. doi:10.1016/j.biocon.2015.10.020.

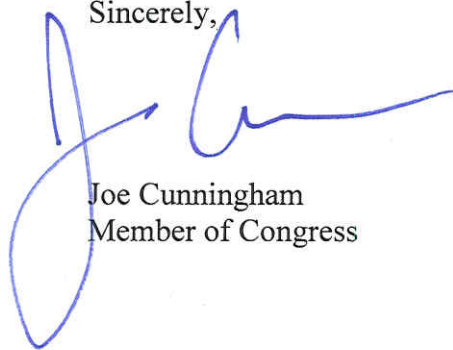


avoidance, navigation, communication and the identification of nesting beaches. Hearing damage may lead to a reduced ability to avoid natural and human-caused threats.

Keeping our ocean healthy and teeming with marine life is critical for tourism, fishing and recreation, important drivers of South Carolina's coastal economy, natural resources, and wildlife. Not only does seismic testing put the health of our ocean and our coastal economy at risk, it is a massive investment in a future of dirty and dangerous offshore drilling that the people of the Lowcountry are united in opposing. I stand with them in opposition to both the proposed seismic permits and of course, the possibility of offshore drilling. Far too much is at stake.

In closing, not only would a Coastal Zone Management Act federal consistency certification be inconsistent with the state's coastal management program, it would risk the natural resources and clean waters that are essential parts of South Carolina and should remain that way for generations to come. I respectfully urge you to determine that WesternGeco's proposed seismic survey is absolutely inconsistent with South Carolina's coastal management program.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Joe Cunningham', with a large, stylized initial 'J'.

Joe Cunningham  
Member of Congress